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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,741	12/17/2003	Eliav Zipper	P-6114-US	5609

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EXAMINER

JACKSON, BLANE J

ART UNIT PAPER NUMBER

2618

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/736,741	Applicant(s) ZIPPER, ELIAV	
	Examiner Blane J. Jackson	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-26 is/are allowed.
- 6) ☒ Claim(s) 4-7 is/are rejected.
- 7) ☒ Claim(s) 9-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statements filed 20 October 2004, 12 April 2005 and 20 June 2006 have been received and placed of record in the file.

Election/Restrictions

Applicant's election without traverse of claims 4-26 in the reply filed on 25 April 2006 is acknowledged.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 4-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Korol (US 7,009,447).

As to claim 4, Korol teaches a method comprising:

Multiplying a first phase shifted signal by a first amplitude modulation signal with a first scaling factor to produce a first phase shifted modulated signal (figure 2, column 3, lines 5-47, phase modulated carrier (214) and polyphase filter (222) to provide two phase shifted phase modulated signals, AM modulated signal to combiner (225) to scale PM +90 degree signal),

Multiplying a second phase shifted signal with a second amplitude modulation signal to produce a second phase shifted modulated signal (AM modulated signal to combiner (226) to scale PM-90 degree signal), and

Generating outphased modulated signals from said first phase shifted modulated signal and said second phase shifted modulated signal (column 3, lines 31-40, combiners (225 and 226) provide outphased signals to VGAs (227 and 228)).

As to claim 5, Korol teaches the method of claim 4 wherein multiplying said second phase shifted signal with said second amplitude modulation signal comprises multiplying with a second scaling factor (figure 2, column 4, lines 41-54, a modulation

method where the AM high signal is split to amplitude modulate the first and second phase shifted signals).

As to claim 6, Korol teaches the method of claim 5 wherein said second scaling factor is substantially equivalent to said first scaling factor (figure 2, column 4, lines 41-54, a modulation method where the AM high signal is split to amplitude modulate the first and second phase shifted signals).

As to claim 7, Korol teaches the method of claim 4 further comprising setting said first scaling factor once per command to set an average output power of output signals of a power amplifier, said output signals generated by amplifying said outphased modulated signals by said power amplifier (column 3, lines 31-60, AM low and AM high control signals are to control the desired output power of PA unit (230)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheffler (US 2003/0083030) in view of Hostetter (US 4,866,395).

As to claim 8, Scheffler teaches a method comprising:

Multiplying a carrier signal by an amplitude modulation signal with a scaling factor to produce an amplitude modulated signal (figure 1, paragraphs 0010-0012, received carrier signal is input to an LNA where the LNA is subject to high/low gain switching),

Phase splitting said amplitude modulated signal to generate phase shifted modulated signals (paragraph 0010, LNA output is applied to phase splitter (12)).

Scheffler teaches a receiver to process a carrier signal with an example of demodulating FSK signals, paragraph 0010, but is silent as to processing a phase modulated carrier signal.

Hostetter teaches a universal carrier recovery and data detection for digital communication systems where the RF receiver (8) produces an IF output from PSK, a phase modulated signal or a QAM carrier signal, column 1, lines 29-68.

It would have been obvious to one of ordinary skill in the art to recognize the application of the automatic gain control circuits of Scheffler in the RF receiver of Hostetter for the reception and demodulation of digital signals.

Allowable Subject Matter

Claims 9-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As to claim 9, the prior art made of record teaches the method of claim 8 but does not teach the application of the claim elements

with respect to outphased modulated signals used by a power amplifier. As to claim 11, the prior art made of record does not teach a limiting function.

Claims 17-26 are allowed. The following is a statement of reasons for the indication of allowable subject matter: As to claims 17 and 21, the prior art made of record failed to teach an outphasing modulator including a sum-difference combiner coupled to the phase splitter, the sum-different combiner to produce from the phase shifted modulated signals outphased modulated signals.

Conclusion

The prior art made of record and not relied upon but considered pertinent to applicant's disclosure includes: Rosnell (US 2004/0266368), Korol (US 7,030,714), Hellberg et al. (US 2006/0114060), Hagh et al. (US 2004/0101065), Hornak et al. (US 5,365,187) and Evans Jr. (US 2,624,041).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blane J. Jackson whose telephone number is (571) 272-7890. The examiner can normally be reached on Monday through Friday, 9:00 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BJJ

A handwritten signature in black ink, appearing to be "Blum" followed by a stylized flourish.